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SPECIFICATION NO. 57-A-1052-A

(TEST OUTLINE FOR  
CONTRACT RD-79, TASK ORDER VII,  
PHASE A AND B)

DDG <u>40</u>	REV DATE <u>9 APR 1956</u>	BY <u>064540</u>
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1 August 1956

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## SPECIFICATION NO. 57-A-1052-A

## PHASE A

## TASK 7 - PHASE A

## THE PROBLEM:

To fabricate necessary installation cables, mounting assemblies, power filters, aircraft switch fuse indicator groups, remote indicator/control units and associated test bench junction boxes to provide for system installation. These items are identified as follows:

- Item 1. 15 each Aircraft Remote Indicator Cable per attached drawing.
- Item 2.
  - a. 15 sets combined installation cables 1 and 2; 10 cables per set total 150 cables. Each set to be numbered 1 thru 10 and each video amplifier branch to be designated either ( ) port and ( ) starboard or ( ) left and ( ) right.
  - b. 90 cables No. 3 (Monitor cables) to be incorporated in mounting rack assemblies.
  - c. 15 sets of Cable No. 4, Power interconnecting cable from Power distribution box to mounting rack filter. 10 cables per set. Each set numbered 1 thru 10.

Item 2 a, b, and c, per attached drawing and cable form-up drawing.
- Item 3. 15 each aircraft heater power distribution boxes per attached drawing.
- Item 4. 15 each aircraft switch/fuse/indicator group box type B per attached drawing.
- Item 5. 15 each aircraft remote Indicator/Control unit per attached drawing.
- Item 6. 8 each test bench junction boxes and a total of 296 ancillary cables per attached drawing.
- Item 7. 30 each mounting assemblies to house one recorder, one amplifier, power supply and one filter per attached specification.
- Item 8. 30 each dual mounting assemblies to house two recorders, two power supplies and two filters per attached specification.
- Item 9. Supply working drawings for mechanical construction under items 3, 4, 5, 6, 7, and 8. Supply schematics for cables and wiring under items 1 thru 9. Two copies of Parts Data List as contained in Exhibit A.

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**SPECIAL CONDITIONS:**

1. All material, except test bench junction box, will be utilized under conditions encountered in airborne operations. Special emphasis must be provided for salt moisture, fungus and all material to be tropicalized where necessary.
2. Color code call-outs contained in attached drawings and specification are furnished for guide purposes. Contractor may provide alternate color choices when such selection, by virtue of available wire size, and delivery, will expedite delivery of end product. Contractor must advise color code data when established.
3. Contractor to deliver these items on an as available basis.

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**S E C R E T****PHASE B****TASK 7 - PHASE B****THE PROBLEM:**

To perform system test on one complete system from RF input of recorder output for bands covered by filter/detector assemblies procured under Task Order V, RD-79, utilizing one set of cables and installation components being established under T. O. 7, Phase A, RD-79. Cables to be used at maximum cable lengths so that the materials to be expended during this test will be limited to one set of connectors used at the amplifier ends of the cables. The cables will be re-captured upon completion of tests, and furnished as deliverable items under phase A of this task. The primary object of the system test is to provide the user with data covering the RF-input levels, from test generator sources, to permit field users to perform test bench checks and pre-flight operational checks of the equipments.

In addition contractor will verify antenna filter bandpass characteristics and insertion loss as measured by sub-contractor and provide tangential signal sensitivity data for these filters when combined with their appropriate crystal detector assemblies. Optimum forward bias, in microamps, will be established for each frequency band.

**SPECIAL CONDITIONS:**

The following equipments shall be GFE to contractor for this system test:

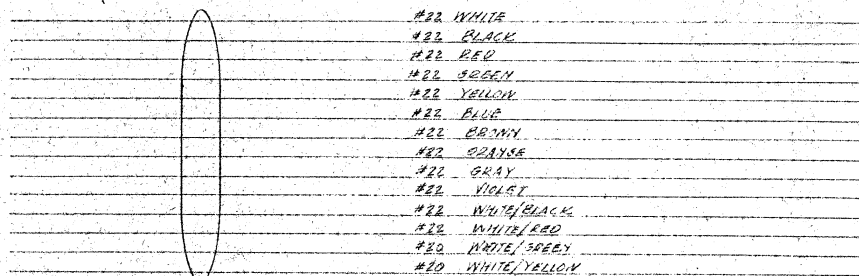
- a. 2 each System One units (SECRET) Stock No. 5/5840-999-0600  
consisting of: (total) 2 each information recorder MP-10737  
4 each information amplifier MP-10641  
2 each power supply MP-10406
- b. 1 each Signal Generator HP 616A (1800 to 4000 mcs)  
stock number 5/6625-003-8678
- c. 2 each Antenna AT-38A/APT Stock No. 5985-003-9623
- d. 2 each Antenna AT-225/APN Stock No. 5985-003-9625
- e. 2 each Antenna AT-184A/AP Stock No. 5985-003-9624
- f. 2 each Antenna AS-246/AP Stock No. 5985-003-9626

**S E C R E T**

AIRCRAFT REMOTE INDICATOR CABLE

QUANTITY: 15 Each

Description: 14-conductor, 50-foot Aircraft Remote Indicator Cable. Cable ends not terminated, to be employed between aircraft switch/fuse power distribution box to a remote indicator/switch point. 12 conductors to be equal to MIL-W-5085, # 22 color-coded (or otherwise marked every three inches) white, black, red, green, yellow, blue, brown, orange, gray, violet, white/black, and white/red; two conductors equal to MIL-W-5085, # 20 color-coded (or otherwise marked every three inches) white/green and white/yellow. Cable to nylon or teflon laced back 5 feet from each end. 30 feet of lacing cord to be furnished with each cable. Cable to be sleeved with Bentley, Harris Manufacturing Company's Fibreglas sleeving Grade 0-3 Silicone (NEMA B-C-3) natural brown color. Sleeving to be 49 feet in length, six inch conductor leads to extend at each cable end.



GLASS LOOM  
COVERED

MIL-W-5085  
 14 COND. CABLE - 50' LONG (LOOM 49' LONG)  
 NON-TERMINATED - NYLON LACED

TITLE: <b>AIRCRAFT REMOTE INDICATOR CABLE</b>	
DESIGNED BY:	SCALE: <b>NONE</b>
DRAWN BY: <b>AFN</b>	DATE: <b>7 JUNE '56</b>
CHECKED BY:	CWG. No.
APPROVED BY:	

## INSTALLATION CABLES

QUANTITY: 15 sets Combined cable No 1 and 2; 10 cables per set total 150 cables  
 15 sets Power cable No. 4; 10 cables per set, total 150 cables  
 90 cables No. 3 Monitor cable to be incorporated in mounting racks.

## Combined Cable 1 &amp; 2

Cable portion designated as cable 1 is that which connects the recorder unit to its external signal sources, external oscillator source, its internal oscillator disable arrangement and its associated power input. Cable 2 is that portion from the power supply unit which furnishes power to the remote video amplifiers and which is run to these units together with the signal output cables which terminate in cable 1. All wires to be color coded per attached drawing or otherwise identified at intervals not greater than every three inches. Shielding required as indicated in attached drawing. All runs to be loomed with Bently, Harris manufacturing Co. Fibre-glass Grade C-3, silicone. Wire to be equal to MIL-W-5086 except P702 terminals listed here to be Suprenant #23BUB-1934-JN two conductor shielded:

P702 Term K # 22 Green	Starboard
L # 22 Black	Amplifier signal output
M # 22 Brown	External
N # 22 Black	oscillator input
P # 22 Blue	Port
R # 22 Black	Amplifier signal output

## Cable 3

Monitor cable to be incorporated into mounting rack assemblies. One cable per recorder space.

## Cable 4

Power connecting cable to be shielded and loomed.

Drawings: Cable Wiring drawing attached  
 Cable formup drawing

## Cable Identification:

Suitable identification markers will be placed on all cable looms (cables 1, 2 and 4 above) at intervals not greater than 2-foot or at each end when shorter distances are involved which will establish each set as being equipment 1 thru 10.

